SIMPLWINDOWS NAME:	Gentner XAP800/PSR1212 Single Channel Output Control with Setup
CATEGORY:	Conferencing
VERSION:	1.0
SUMMARY:	Allows control of a single channel of output volume and setup parameters to be adjusted
GENERAL NOTES:	

The commands used for the XAP800/PSR1212 mixer are similar to the commands used for the Gentner AP800/AP400. Therefore the same modules developed for the XAP800/PSR1212 may work on other (past and future) Gentner products. To allow for this flexibility of use, you must specify which Gentner model is being controlled using the TYPE-ID-ASCII parameter field. Currently valid entries are a single digit from 1 to 5 with no suffix as shown below:

For XAP800, use 5
For PSR1212, use 4
For AP400, use 3
For AP10, use 2
For AP800, use 1

Multiple devices can be connected to the Gentner bus and controlled from a single RS232 port. Therefore, it is also necessary to enter the Unit ID of the device being controlled. This should be entered in the UNIT-ID-ASCII parameter field as a single digit number from 0-8 with no suffix.

This module will allow you to control any gain function on the mixer. Gain functions are categorized into Groups designated by a single letter entered as a 2 digit hex number with no suffix into the PARAMETER-FIELD-HEX parameter field. The groups are as follows:

Inputs - I, use 49
Outputs - O, use 4F
Mic Input - M, use 4D
Processing - P, use 50
Line Inputs - L, use 4C

Within each group, there are a range of channels that can be adjusted. You must specify which channel you want the module to control using the CHANNEL-ID-ASCII and CHANNEL-ID-HEX parameters. Valid channel ranges are:

For Inputs - 1-12
For Outputs - 1-12
For Mic inputs - 1-8
For Processing - A-H
For Line Inputs - 9-12

For the CHANNEL-ID-ASCII parameter, enter the ASCII representation of the channel. So for channel 1, enter 1. For channel 12, enter 12.

For channel B, enter B. For the CHANNEL-ID-HEX input, you must enter a 2-digit hex representation of the channel with no suffix. So for channel 1, enter 01. For channel 12, enter 0C. For channel B, enter 42.

This module was designed to operate on a single output channel. The channel can be ramped up/down with buttons, or with a slider object. Mute can also be controlled. In addition the NOM (Number of Open Mics)

setting can be turned on or off.

This module can also be used in conjunction with the Gentner XAP800/PSR1212 Feedback Processor Module to monitor the state of the gain channel. A properly constructed program would consist of a single Gentner XAP800/PSR1212 Feedback Processor Module receiving information from the com port. The output of this module would be connected to the FROM-GENTNER-PROCESSOR$ inputs of as many other XAP800/PSR1212 modules are in the program. The Processor module will reformat the data into the format that the remaining Gentner modules are programmed for.

Upon startup of the Crestron system, it may be desired to pulse the POLL-* inputs. This will request the current settings for the selected channel, so the feedback can be properly displayed. After this point, the POLL-* inputs should not need to be used.

Note that if it is desired to control multiple channels of volume simultaneously, it is recommended to set up Macros on the Gentner system. A macro can be set up to adjust multiple channels simultaneously. By repeatedly triggering the Macro from the Crestron system, we can control multiple channels. See the demo program for an example of how this is programmed.

CRESTRON HARDWARE REQUIRED:	CNXCOM, ST-COM
SETUP OF CRESTRON HARDWARE:	Baud Rate -38400 Parity - None Data Bits - 8 Stop Bits - 1 RTS and CTS Handshaking should be enabled to insure no data is lost.
VENDOR FIRMWARE:	PSR1212 - 1.0.3 XAP800 - 1.1.0
VENDOR SETUP:	Flow control should be set to "on". The baud rate should be set to 38400.
CABLE NUMBER:	CNSP-141

CONTROL:

VOLUME-UP/DOWN	D	Press and hold to ramp the level up/down
VOLUME-MUTE-ON/OFF/TOG	D	Pulse to discretely mute or unmute, or to toggle the state of mute
VOLUME-SLIDER	A	Can be routed from the analog portion of a touchpanel definition, to allow a slider to control the level
POLL-VOLUME	D	Pulse on startup of the Crestron system to request the current settings
NOM-ON/OFF/TOG	D	Pulse to turn NOM on or off or to toggle the states of NOM
POLL-NOM	D	Pulse on startup to request the current state of the NOM parameter
FROM-GENTNER-PROCESSOR$	S	Must be routed from the output of the Gentner PSR1212 Feedback Processor module
TYPE-ID-ASCII	P	Enter 4 for PSR1212, 5 for XAP800
		Enter the unit number of the

UNIT-ID-ASCII	P	XAP800/PSR1212. Should be a number from 0-8
CHANNEL-ID-ASCII	P	Enter the channel to be controlled. For channel 1, enter 1. For channel 12, enter 12. For channel B, enter B.
CHANNEL-ID-HEX	P	Enter the 2-digit hex version of the channel to be controlled. For channel 1, enter 01. For channel 12, enter 0C. For channel B, enter 42.
PARAMETER-ID-HEX	P	Enter the 2 digit hex version of the parameter (group) to be controlled. For Outputs, enter 4F. For Mic Inputs, enter 4D.

FEEDBACK:

VOLUME-BAR	A	Indicates the relative volume level. Should be routed to a bargraph on a touchpanel
VOLUME-TEXT$	S	Text indicating the level in dB format. Should be routed to an indirect text field on a touchpanel
VOLUME-MUTE-ON/OFF-FB	D	True feedback indicating the state of mute
NOM-ON/OFF-FB	D	True feedback indicating the state of NOM
GENTNER-TX$	S	Serial signal to be routed to a 2-way RS232 port

OPS USED FOR TESTING:	5.12.26x
COMPILER USED FOR TESTING:	SimplWindows Version 1.61.12
SAMPLE PROGRAM:	Gentner XAP800/PSR1212 Demo Program
REVISION HISTORY:	None